

## **Watershed Operations**

May 2009

#### Introduction

This project will complete the restoration of the Blackwood Creek Watershed floodwater retarding structure built in 1985. The dam is one of 11 structures constructed in the implementation protecting property downstream.



Blackwood Creek Watershed Structure 32-A is located in Hayes County, Nebraska.

Funded through the American Recovery and Reinvestment Act (ARRA) of 2009, this project is part of the Obama Administration's plans to modernize the nation's infrastructure, jump-start the economy, and create jobs. NRCS is using Recovery Act dollars to update aging flood control structures, protect and maintain water supplies, improve water quality, reduce soil erosion, enhance fish and wildlife habitat, and restore wetlands. NRCS acquires easements and restores floodplains to safeguard lives and property in areas along streams and rivers that have experienced flooding.

# Restoration of Blackwood Creek Watershed Structure 32-A, Nebraska

## **Project Description**

- Location: Hayes County, 3rd Congressional District
- Federal Funding: \$2,000,000
- **Sponsor Funding:** \$120,000

This flood control structure will be restored to its original configuration, and will protect 7.5 square miles. The structure will have two auxiliary spillways at either end of the dam. The reservoir behind the structure will remain dry under normal conditions.

#### **Partners**

- USDA Natural Resources Conservation Service
- Middle Republican Natural Resources District
- Nebraska Department of Natural Resources

#### **Benefits**

The 11 flood control structures in the Watershed work together to protect 187,700 acres. These structures help capture floodwater and then slowly release the water downstream preventing erosion and damage to public and private property.

Blackwood Creek Watershed Structure 32-A after receiving over nine inches of rain within a two day period. Shortly after this photo was taken, Structure 32-A failed prompting this current restoration effort by NRCS through the Recovery Act.

## Restoration of Blackwood Creek Watershed Structure 32-A, Nebraska

These structures have provided flood protection to the area for over 20 years, and are estimated at nearly \$1 million in flood protection benefits annually.

Flood control structures in Blackwood Creek have prevented over \$326,000 in damage from a single recent storm event. Restoring Blackwood Creek Watershed Structure 32-A will help continue this type of watershed protection year after year.

### **Economic Opportunities**

Construction should begin in early fall of 2009 and be completed by September 2010. This project will create or save jobs in the local area. Economic gains will be felt by subcontractors for gravel, concrete, and fuel purchases during construction plus motels and restaurants used by workers.

## **Statewide Perspective**

This area of southwestern Nebraska is noted for high volume with intense, short duration rains. The rain amount aiding this failure was 9-inches in 48 hours. This structure is one of 11 built in the watershed. A 1999 storm dumped 14-inches of rain in the watershed. NRCS estimated a reduction of \$326,000 in damages because of these structures. Together they, and other conservation practices, provide protection to land, county roads, bridges and highways downstream. In addition, they slow the runoff water, causing less sediment to reach rivers. Typically, these dams are designed to be dry, but work as "silent guardians"

until they are needed. Economists estimated that for every dollar spent on these Blackwood structures, there would be a \$2.20 return in benefits. These 11 structures, and 448 other similar flood control structures across Nebraska, provide massive flooding protection.

#### **For More Information**

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Blackwood Creek Watershed Structure 32-A failed following a nine inch rain, summer of 2008. Despite damage to the watershed structure itself, there was no damage to any private or public property.

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